



Pest Management Regulatory Agency  
2720 Riverside Drive  
Ottawa ON K1A 0K9

Pest Management Information Service  
Telephone: 1-800-267-6315  
From outside Canada: (613) 736-3799\*  
\* Long distance charges apply.  
Fax: (613) 736-3798  
E-Mail: [pminfoserv@hc-sc.gc.ca](mailto:pminfoserv@hc-sc.gc.ca)  
Internet: [www.hc-sc.gc.ca/pmra-arla](http://www.hc-sc.gc.ca/pmra-arla)

Canada

Fact Sheet on the use of Malathion in Mosquito Control Programs



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## Use of Malathion in Mosquito Control Programs

Malathion is a broad-spectrum organophosphate insecticide that has been registered for use in Canada since 1953. Malathion is registered for the control of mosquitos at the larval and adult stages. It is the preferred choice for ultra low volume aerial application to control adult mosquitos.

Products that contain malathion are approved for a number of uses beyond that of controlling mosquitos, e.g., controlling insects in agriculture and in home and garden use.

## Are There Health Concerns Related to the Use of Malathion for Adult Mosquito Control?

Among the available mosquito control options, malathion has the most current and comprehensive safety information available. All uses of malathion have recently been reviewed by the United States Environmental Protection Agency (EPA) using the high safety standards and rigorous risk assessment approaches required by the *Food Quality Protection Act* (FQPA). The FQPA includes special consideration of risk to sensitive subpopulations such as infants and children. The EPA's conclusions support the continued use of malathion for mosquito control.

Health Canada's Pest Management Regulatory Agency's (PMRA) re-evaluation of malathion is expected to be completed by the end of December 2001. Based on PMRA findings thus far, Canadian regulators are in agreement with the conclusions of the EPA.

## Does Spraying Malathion Have an Effect on the Environment?

The EPA Fact Sheet on *Malathion for Mosquito Control* states that "malathion used in mosquito control programs does not pose unreasonable risks to wildlife or the environment. Malathion degrades rapidly in the environment, especially in moist soil, and it displays low toxicity to birds and mammals. Malathion is highly toxic to insects, including beneficial insects such as honeybees."

The PMRA has determined that malathion is highly toxic to fish and aquatic invertebrates. To minimize exposure to aquatic organisms, care should be taken to avoid overspray or drift to aquatic environments like sloughs, ponds, prairie potholes, lakes, rivers, streams and wetlands when applying malathion or when cleaning and rinsing spray equipment or containers.

In urban areas, care should be taken to limit the application rate of malathion to 0.23 kg/ha because, as indicated on the label, higher application rates may damage automobile paint.

## History of Safe Use for Large-Scale Aerial Application

Malathion has been used in a number of large-scale aerial spray programs for the control of pests. It was used to control the initial outbreak of West Nile Virus in New York City in the fall of 1999. Other large-scale programs in the 1990s included the control of Mediterranean fruit fly outbreaks in Florida and California. In Canada, malathion has been used for a number of years to control mosquitos in Winnipeg.

## Role of the PMRA

The PMRA is responsible for assessing the human health and environmental safety of all pest control products prior to their approval for use in Canada. Manufacturers must provide the Agency with a full analysis of the product formulation, as well as extensive health and environmental data, so that a risk assessment can be carried out by PMRA scientists. Only products that are scientifically reviewed and found to be effective and safe for use with minimal risk to human health and the environment are registered by the PMRA.

## Contact Information for the PMRA

Information on pesticide regulation can be obtained from the PMRA's web site at [www.hc-sc.gc.ca/pmra-arla/](http://www.hc-sc.gc.ca/pmra-arla/) or by contacting the Pest Management Information Service.

## Other Sources of Information

See also the United States Environmental Protection Agency, Office of Pesticide Programs web site at [www.epa.gov/pesticides](http://www.epa.gov/pesticides) and

the New York State Health Department web site at <http://www.health.state.ny.us/nysdoh/pest/malathio.htm>.

For information about the West Nile Virus, please see Health Canada's Population and Public Health Branch site for West Nile Virus information at <http://nile.healthcanada.net>.